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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Charles Frederick James Barnes

Conf. No.: **5982**

Appln. No.: **10/690,569**

Group Art Unit: **2655**

Filed: **October 23, 2003**

Examiner: **Unknown**

For: **INFORMATION STORAGE SYSTEMS**

**INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §§ 1.97 and 1.98**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form which the Examiner may deem material to patentability of the claims of the above-identified application.

A copy of each of the listed documents (other than any U.S. patents and/or publications), is submitted herewith.

The present Information Disclosure Statement is being filed after three months from the application's filing date; but before the mailing date of the first Office Action on the merits. Therefore, no Statement under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed

INFORMATION DISCLOSURE STATEMENT
U.S. Appln. No. 10/690,569

document as a competent reference against the claims of the present application.

[Handwritten signature]
Respectfully submitted,

[Handwritten signature]
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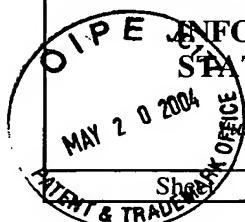
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23373

CUSTOMER NUMBER

Date: May 20, 2004

Substitute for Form 1449 A & B/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheets

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of

2

Complete if Known

Application Number	10/690,569
Confirmation Number	5982
Filing Date	October 23, 2003
First Named Inventor	Charles Frederick James BARNES
Art Unit	2655
Examiner Name	Unknown
Attorney Docket Number	Q-72585

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number	Kind Code ³ (if known)		
		US 6,272,083		08/07/2001	Aratani
		US 6,078,471		06/20/2000	Fisk
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		US 5,995,338		11/30/1999	Watanabe et al

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)			

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.	Translation ⁶
		Carley et al, <i>Communication of the ACM</i> , 43(11):73-80 (2000)	
		Solin et al, "Giant Magneto Resistance in Zero-gap HgCdTe", www.neci.nj.nec.com/homepages/thio/gmr.htm	
		"Composite Diamond Coating", Information Sheet, www.surfacetechnology.com	
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		"Diamond Films for Microelectromechanical Systems (MEMS)", Information Sheet, www.techtransfer.anl.gov/techtour/diamondmems.html	
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		"Glass Substrate for Magnetic Disk in HDD", Information sheet, http://www7.big.or.jp/~cgi19786/ngf/nglass/ng06e.html	
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		"Ultra Low Expansion Glass", Information sheet, www.pgo-online.com/intl/jse/frameroute/genericset.html?Content=/intl/katalog/ule.html	
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Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Substitute for Form 1449 A & B/PTO				<i>Complete if Known</i>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	10/690,569
				Confirmation Number	5982
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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation ⁶
		Country Code ³	Number ⁴			
		EP	0 463 908	06/11/1991	Thomson-CSF	Abstract
		EP	0 895 237	02/03/1999	Samsung Electronics Co., Ltd.	
		EP	1 114 393	07/11/2001	Sumitomo Electric Industries, Ltd.	
		EP	1 156 479	11/21/2001	Mitsubishi Chemical Corporation	
		EP	1 381 031	01/14/2004	Jean-Pierre NOZIERES	

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.			Translation ⁶
		"Thermal Properties, GE Quartz, http://www.gequartz.com/en/thermal.htm			Info Sheet
		"The Art of the Quantum Leap", Economist Story, http://www.economist.com/science/tg/displayStory.cfm?Story_ID=885080			
		"Giant Magnetoresistance", http://srweb2.dl.ac.uk/srs/other/ow/MAGNETISM/Giant_Magneto.html			Info Sheet
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		"M5.004 Challenges of Head-Disk Interface Tribology for Ultrahigh Density Magnetic Recording", Invited Session by Jing Gui; http://www.eps.org/aps/meet/MAR00/baps/abs/S4840004.html			
		"Tribology of Magnetic Media and Recording Technologies"			Intro page
		"Technology Research and Development - Basics of Magnetic Recording", http://www.infomrt.com/readrite/magbasis.html			Info Sheet
		"HMT Delivers Volume Shipments of Advanced GMR Media to Maxtor", http://www.semiconductorfabtech.com/industry.news/9911/10.02.shtml			News Story
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		Caruso et al, "A New Perspective on Magnetic Field Sensing", http://www.et.byu.edu/eit444/Links/SensorsDec1998/SensorsMagFieldDec1998.shtml			
		Singer, "Hard Disk Recording Aims to Get Perpendicular", http://www.reed-electronics.com/semiconductor/article/CA240215?text=hard+disk+recording+aims+to+get+perpendicular			
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		"Single vs. Multiple Actuators", http://www.pcguide.com/ref/hdd/op/actMultiple-c.html			Article
		"Storage/Hard Disks", http://www.pctechguide.com/04disks.htm			Info Sheet
		"What is RAID?", http://www.uni-mainz.de/~neuffer/scsi/what_is_raid.html			Article

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